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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: S. Smeekens et al.

Attorney Docket No.: ARNO114646

Application No.: 09/423,575

Group Art Unit: 1656

Filed: January 27, 2000

Examiner: S. Chunduru

Title: PLANT GENE CONSTRUCTS AND THEIR USE

RESPONSE TO RESTRICTION REQUIREMENT

Seattle, Washington 98101

October 22, 2001

TO THE COMMISSIONER FOR PATENTS:

In response to the Examiner's action mailed June 20, 2001, applicants hereby elect claims of the Examiner's Group I (Claims 1-4) for initial prosecution in the above-captioned application, with traverse.

The Examiner has entered a restriction requirement in which the applicants are required to elect a single invention from among the following groups:

- I. Claims 1-4, drawn to a process for modifying flowering in plants;
- II. Claim 5-7, drawn to a plant gene construct;
- III. Claims 8-12, drawn to transformed plant cells or plant;
- IV. Claims 13-14, drawn to a method of inhibiting over-expression of ATH1 in plants;
- V. Claims 15-16, drawn to a plant which has a transgene that inhibits the shade avoidance response; and
- VI. Claim 17, drawn to a process for producing a plant.

In entering the restriction requirement, the Examiner has recognized that this application, a U.S. national phase application filed under Section 371, is governed by the PCT rules

LAW OFFICES OF  
CHRISTENSEN O'CONNOR JOHNSON KINDNESS PLLC  
1420 Fifth Avenue  
Suite 2800  
Seattle, Washington 98101  
206.682.8100

governing lack of unity. However, the Examiner has stated that the European Search Report cited prior art (Quaedvlieg et al.) "based on which the instant claims are anticipated and lack special technical feature." In this regard, it is believed that the Examiner has misconstrued the nature and holding of the European Patent Office in connection with the Quaedvlieg et al. reference. Specifically, the International Preliminary Examination Report found Claims 1-9 and 11-17 to be novel, and Claims 1-4, 6, 7, and 13-17 to possess inventive step over the references cited in the International Search Report (including the Quaedvlieg et al. reference).

In dealing with lack of unity, the European Patent Office identified the following inventions in the application:

1. Claims 1-4, relating to a process for modifying flowering in plants;
2. Claims 5-12, relating to a plant gene construct comprising a DNA sequence for an ATH1 gene product, a transformed plant cell containing said construct and a plant comprising said plant cell;
3. Claims 13 and 14, relating to a process for inhibiting over-expression of ATH1 in plants; and
4. Claims 15-17, relating to a plant in which the shade avoidance response is inhibited and a process for producing such plant.

The European Patent Office further indicated that the technical relationship between the subject matter of these groups is found in the gene encoding ATH1 protein. Since this gene was stated to be known in the art (citing the Quaedvlieg et al. reference), the European Patent Office found that the claims were not linked by a common inventive concept.

Although the European Patent Office determined an initial lack of unity of invention in the claims in the application, it recognized that the subject matter of these claims was so closely tied that no undue burden was placed upon the European Patent Office in searching and examining the claims together. As stated by the European Patent Office in the International Preliminary Examination Report:

LAW OFFICES OF  
CHRISTENSEN O'CONNOR JOHNSON KINDNESS<sup>PLC</sup>  
1420 Fifth Avenue  
Suite 2800  
Seattle, Washington 98101  
206.682.8100

As the examination of the present application could be carried out without undue effort, the IPEA chose, according to Rule 68.1 PCT, not to invite the applicant to restrict or pay additional examination fees.

It is respectfully submitted that the Examiner's identification of six separate independent and distinct inventions among the claims in this application is overly strained and that, as already determined by the European Patent Office, no undue burden would be placed upon the Examiner by examining all of Claims 1-17 together in the present application.

For example, Claims 1-4 (Group I) are directed to the process for modifying flowering in plants by transforming the plants with a DNA construct coding for ATH1. Claims 5-7 (Group II) are drawn to a gene construct coding for ATH1. It is not understood how the Examiner could possibly search and examine the process claims of Group I without searching for the gene construct of Claims 5-7 (the Examiner has indicated that the subject matter of the claims of Groups I and II is classified together in class 435). Claims 8-12 are directed to plants transformed with the construct of Claims 5-7 or by the process of Claims 1-4. DNA construct claims and transformed cell or transformed organism claims are commonly examined together under U.S. practice. Claims 15 and 16 are directed to plants affected by the action of a transgene whose product inhibits the formation of ATH1. The subject matter of these claims is closely related to construct Claims 5-7 and transformed plant Claims 8-12. It is not understood how the Examiner could effectively separately search or examine the subject matter of these claims. Finally, Claim 17 is directed to a process for producing a plant by transforming cells of the plant with a construct of Claim 7 and regenerating plants from the transformed cells. Again, DNA construct claims are commonly searched together with transformed cell claims and claims directed to methods of transforming a cell with the construct under U.S. law.

In summary, applicants strongly believe that the Examiner has failed to establish any undue burden upon the Office in the examination of Claims 1-17 together in this application. This finding is specifically supported by the action of the International Preliminary Examining Authority (the European Patent Office) in holding that the examination of the International PCT application could be carried out without undue effort and without requiring the applicants to restrict or pay additional examination fees.

LAW OFFICES OF  
CHRISTENSEN O'CONNOR JOHNSON KINDNESS<sup>PLLC</sup>  
1420 Fifth Avenue  
Suite 2800  
Seattle, Washington 98101  
206.682.8100

## CONCLUSION

In response to the restriction requirement, the claims of the Examiner's Group I have been elected for prosecution in this application. However, the Examiner is strongly urged to reconsider and withdraw his restriction requirement and to examine all of Claims 1-17 in the present application. The Examiner is requested to contact applicants' attorney by telephone at the number set forth below to discuss any issues that may remain in connection with this restriction requirement or to advance prosecution of this application.

Respectfully submitted,

CHRISTENSEN O'CONNOR  
JOHNSON KINDNESS<sup>PLLC</sup>

*Dennis K. Shelton*  
Dennis K. Shelton  
Registration No. 26,997  
Direct Dial No. 206.695.1718

I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed envelope as first class mail with postage thereon fully prepaid and addressed to the Commissioner for Patents, Washington, D.C. 20231, on the below date.

Date:

*October 20, 2001*

*Lori A. Lewis*

DKS:cj

LAW OFFICES OF  
CHRISTENSEN O'CONNOR JOHNSON KINDNESS<sup>PLLC</sup>  
1420 Fifth Avenue  
Suite 2800  
Seattle, Washington 98101  
206.682.8100